30-AB-0035

California Regional Water Quality Control Board
Santa Ana Region

Order No. 99-33

Waste Discharge Requirements
For
County of Orange
Integrated Waste Management Department
Olinda Alpha Landfill, Orange County

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Board), finds that:

1. Orange County Integrated Waste Management Department (hereinafter OCIWMD) owns and operates the Class III Olinda Alpha Landfill (OAL). The site consists of two separate but adjacent canyon fill areas, Olinda Disposal Station 20 and Olinda Alpha Disposal Station 23. The sites are located outside the 100-year floodplain in an unincorporated area of the County, north of the City of Brea in the Puente/Chino Hills (Sections 4, 5, 8, and 9, T3S, R9W, SBB&M) as shown on Attachment A, which is hereby made a part of this order.

2. The Board adopted requirements for Olinda Disposal Station No. 20, Resolution No. 59-21, on Sept. 25, 1959, which was amended by Waste Discharge Requirements (WDR) Order No. 81-48, adopted April 10, 1981. WDR Order No. 78-29 for Olinda Alpha Disposal Station No. 23. was adopted on February 10, 1978. Requirements for both landfills were amended by WDR Order Nos. 93-57 and 94-17 adopted on September 10, 1993 and March 11, 1994, respectively, to incorporate new federal regulations (Subtitle D) and to prescribe uniform drainage and erosion control system requirements for municipal solid waste (MSW) landfills in the Santa Ana Region. Order Nos. 93-57 and 94-17 were replaced by WDR Order No. 98-99 adopted November 20, 1998. These Orders contain additional discharge, monitoring, and reporting requirements which require the Discharger to maintain the landfill in accordance with Title 27, Division 2, Subdivision 1 (formerly Title 23, Division 3, Chapter 15) of the California Code of Regulations (CCR), and with State Board Resolution 93-62, Policy for Regulation of Discharges of Municipal Solid Waste.

3. On February 18, 1997, the OCIWMD submitted a request to the Regional Board to consider waiving the liner requirements for the 64-acre central ridge expansion affected by the new regulations. On August 16, 1999, OCIWMD submitted a similar request to waive liner requirements for a one-acre expansion north of the Olinda fill area (Attachment B). 40 CFR, also known as Subtitle D, Title 27, and State Board Resolution No. 93-62, make provisions for alternatives to the composite liner requirement, provided that certain conditions can be met. The resolution sets forth specific criteria which, if successfully addressed allow the Regional Board to prescribe the requirements for containment systems that are less than the design standard set forth in the Resolution policy.

4. Both the center ridge area and the one-acre expansion area north of the Olinda fill area are underlain by a low permeability bedrock aquitard composed predominantly of sandstone and silty sandstone interbedded with siltstone and shale. The central ridge and the one-acre expansion do not overlie a water bearing area as identified by the California Department of Water Resources and as shown in the Basin Plan. Therefore, no beneficial uses are identified for the area underlying the landfill site. Studies indicate that the fault zone acts as barrier to the movement of groundwater to the La Habra-Yorba Linda Groundwater Subbasin, which is located south of the fault. The area immediately south of the fault zone is an oil producing area that has naturally occurring seeps present at ground surface. As a result, the water quality in this area is severely impaired by natural hydrocarbons.

5. A Corrective Action System (CAS) has been installed at the site to intercept contaminated groundwater migrating downgradient from the landfill. The CAS consists of a series of extraction wells and a groundwater treatment system.

6. The OCIWMD believed that their request for a waiver from the liner requirements was appropriate based on existing site conditions, data gathered from groundwater flow modeling and an in-place corrective action system. Board staff agreed that all the conditions set forth in Title 27, Subtitle D and Resolution 93-62 were met.

7. On June 6, 1997, the Board adopted Order No. 97-55 amending waste discharge requirements for Olinda and Olinda Alpha Landfills. The amendment allowed for waiver of the liner requirements for the 64-acre central ridge expansion area. Because all the waiver criteria are met by the one-acre area north of the Olinda fill area, liner requirements are also waived for this new expansion.

8. On January 14, 1998, the OCIWMD submitted a complete Report of Waste Discharge (ROWD) for the proposed expansion and merging of Olinda and Olinda Alpha Landfills. The merger includes the removal of the central ridge between the two canyons for additional fill space, and the subsequent vertical expansion of the entire landfill. The footprint of the entire expanded landfill will cover 420 acres. The expansion area will be constructed in accordance with the requirements specified in Title 27 and Resolution 93-62. This order also incorporates requirements for the discharge of treated groundwater from the facilities corrective action system for use as dust control at the landfill.

9. The landfill site has a present capacity of approximately 60,600,000 cubic yards. The planned lateral and vertical expansion phases will accommodate an ultimate capacity of 123,100,000 cubic yards by the planned closure date of December 31, 2013. The combined site will accept a daily maximum of 8,000 tons of municipal solid waste.

10. Solid waste is compacted and covered daily with appropriate cover material. When the landfill reaches its final design elevation over a given area, it is capped with an interim cover. The interim cover is graded to promote runoff toward a system of surface drainage ditches to minimize percolation of water into the solid waste.

11. A load checking program has been established at the landfill for the purposes of rejecting incoming refuse that is not Class III or inert waste.

12. Revised State and Federal landfill regulations require that all new landfills and lateral expansions of existing landfills must be underlain by composite liners. These liners are required in order to minimize groundwater contamination caused by the migration of leachate and landfill gas. A composite liner consists of a thick geosynthetic (plastic) liner underlain by compacted clay. The need for composite landfill liners for the protection of water quality is indicated by the results of Solid Waste Assessment Test reports and groundwater monitoring data from landfills.

13. The landfill areas regulated under Resolution 59-21 and WDR Order No. 78-29 were not required to be lined prior to waste disposal. Therefore, these portions of the landfill do not have a leachate collection and removal system (LCRS). The unlined portions of these landfills may be contributing contaminants to groundwater. The discharger is required to monitor for constituents of concern in accordance with Monitoring and Reporting Program No. 99-33, attached to this order. Constituents of concern are waste constituents, reaction products, and hazardous constituents that are reasonably expected to be in or derived from waste contained in the waste management unit.

14. The discharger has indicated in the Closure Plan for the landfill that the deed to the landfill property, or some other instrument that is normally examined during title search, will be modified to include, in perpetuity, a notation advising any potential purchaser of the property that:

    a. The parcel has been used as a MSW landfill

    b. The land use options for the parcel are restricted in accordance with the post-closure land uses set forth in the Post-Closure Plan and in WDRs for the landfill; and

    c. In the event that the discharger defaults on carrying out either the post-closure maintenance plan or any corrective action needed to address a release, then the responsibility for carrying out such work falls to the property owner.

15. A Water Quality Control Plan (Basin Plan) became effective on January 24, 1995. The Basin Plan contains beneficial uses and water quality objectives for waters in the Santa Ana Region. The surface drainage from the site is tributary to Carbon Canyon Creek which is tributary to Reach 2 of the Santa Ana River. The beneficial uses of Carbon Canyon Creek include:

    a. Municipal and domestic supply,
    b. Groundwater recharge,
    c. Water contact recreation,
    d. Non-contact water recreation
    e. Warm freshwater habitat,
    f. Wildlife habitat, and
    g. Rare, threatened or endangered species.

16. The beneficial uses of the Santa Ana River, Reach 2 include:

    a. Agricultural supply,
    b. Groundwater recharge,
    c. Water contact recreation,
    d. Non-contact water recreation,
    e. Warm freshwater habitat,
    f. Wildlife habitat, and
    g. Rare, threatened or endangered species.

17. On October 9, 1991, the United States Environmental Protection Agency (U.S. EPA) promulgated regulations for the classification of solid waste disposal facilities and criteria for MSW landfills. These regulations are contained in Title 40, Code of Federal Regulations, Parts 258.

18. On November 19, 1991, the State Board adopted the General Industrial Storm Water Permit, Order No. 91-31-DWQ (as amended by Order No. 92-12-DWQ), NPDES No. CAS0000001. The General Permit implements the Final Regulations (40 CFR Parts 122, 123, and 124) for Storm Water Runoff, promulgated by the U.S. EPA in compliance with §402(p) of the Clean Water Act. The site is covered under this General Permit.

19. On June 17, 1993, the State Board adopted Resolution No. 93-62, "Policy for Regulation of Discharges of MSW," as part of the state's policy for water quality control, under §13140 et seq. of the California Water Code. The Policy directed all Regional Boards to revise the WDRs of each affected MSW landfill to comply with revised Article 5 of Chapter 15[1] as well as revised provisions of Subtitle D regulations.

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[1] See Finding 22.

20. On September 10, 1993, the Regional Board adopted Order No. 93-57, which amended existing WDRs for most of the MSW landfills within the Santa Ana Region, including OAL. Order No. 93-57 included provisions and monitoring and reporting requirements requiring the owners/operators of these MSW landfills to achieve compliance with Resolution No. 93-62 and Subtitle D regulations.

21. On March 11, 1994, the Regional Board adopted Order No. 94-17, further amending the existing WDRs for most of the MSW landfills within the Santa Ana Region, including the OAL. Order No. 94-17 required the owners/operators of MSW landfills to provide and maintain run-on and runoff drainage and erosion control systems at their MSW landfills.

22. On July 18, 1997, the State Water Resources Control Board and the California Integrated Waste Management Board enacted the Solid Waste Requirements, Subdivision 1 of new Division 2, Title 27. Title 27 replaced the non-hazardous waste portion of CCR, Title 23, Division 3, Chapter 15.

23. On November 20, 1998, the Regional Board adopted Order No. 98-99, which combined and replaced Order Nos. 93-57 and 94-17.

24. The Regional Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements.

25. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.

26. The Regional Board adopted the original waste discharge requirements for Olinda Disposal Station No. 20, Resolution No. 59-21, and for Olinda Alpha Disposal Station No. 23, Order No. 78-29, on September 25, 1959 and, February 10, 1978, respectively, and therefore this project is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21169, et seq.) in accordance with Section 15261 (b) of Article 18, Division 6, Title 14 of the California Code of Regulations.

IT IS HEREBY ORDERED that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. DISCHARGE SPECIFICATIONS

1. GROUNDWATER

The discharge shall neither cause nor contribute to the contamination or pollution of ground water via the release of waste constituents in either the liquid or gaseous phase.

2. SURFACE WATER

The discharge shall neither cause nor contribute to any surface water contamination, pollution, or nuisance, including, but not limited to:

a. Floating, suspended, or deposited macroscopic particulate matter or foam;

b. Increases in bottom deposits or aquatic growth;

c. An adverse change in temperature, turbidity, or apparent color beyond natural background levels;

d. The creation or contribution of visible, floating, suspended, or deposited oil or other products of petroleum origin; and

e. The introduction or increase in concentration of toxic or other pollutants/ contaminants resulting in unreasonable impairment of beneficial uses of the waters of the State.

3. UNSATURATED ZONE

The discharge shall not cause any increase in the concentration of waste constituents in soil-pore gas, soil-pore liquid, soil, or other geologic materials outside of OAL if such waste constituents could migrate to the waters of the State and cause a condition of contamination, pollution, or nuisance.

4. CONSTITUENTS OF CONCERN

The discharge shall not cause the concentration of any Constituent of Concern (COC) or Monitoring Parameter to exceed its respective background value in any monitored medium at any Monitoring Point assigned to Detection Monitoring pursuant to the attached M&RP No. 99-33.

5. LIQUIDS USAGE

a. The discharge of liquids, including groundwater, leachate or landfill gas condensate, or their use for dust control or irrigation, at an MSW landfill is prohibited, unless the following conditions are met:

   i. The liquids are being returned to or used at the landfill that produced it; **and**

   ii. The portion of the landfill to which these liquids are discharged is equipped with a containment system meeting the requirements of Section B of this order; **or**

   iii. The liquids generated from the site are disposed of in accordance with a disposal plan approved by the Executive Officer of the Regional Board.

b. This section shall not apply to groundwater leachate, and landfill gas condensate generated from an MSW landfill that is treated in accordance with an approved plan prior to being used for dust control or irrigation.

6. ALTERNATIVE LINER DESIGN

a. **Alternative design** - The County has demonstrated that the alternative liner design system for the one-acre expansion area satisfies the criteria for an engineered alternative to the above Prescriptive Design [as provided by Title 27, Section 20080 (b)], where the performance of the alternative composite liner's components, in combination, equal or exceed the waste containment capability of the prescriptive design. For the one-acre expansion area north of the Olinda fill area, the following shall apply:

i. An approved construction quality assurance/quality control (CQA/CQC) program for the alternative liner design system shall be implemented during construction.

ii. All mitigation measures proposed by the County shall be implemented to protect water quality.

iii. The County and its contractors shall submit daily progress reports to the Executive Officer of the Regional Board during the construction of the landfill's alternative liner design system so that compliance with Item (a) above, can be determined.

iv. Within 90 days of completion of the alternative liner design system, the County shall submit a final (as-built) report including drawings, maps, CQA/CQC certification.

v. If the alternative liner design system fails to perform as expected, the Regional Board reserves the right to require additional protective measures at the landfill.

7. **DISCHARGE OF WASTE**

The discharges of municipal solid waste to any area of OAL beyond the approved footprint is prohibited.

B. WATER QUALITY PROTECTION STANDARD

1. **MONITORING PROGRAM'S BEGINNING DATE:** Unless the Discharger proposes, and the Regional Board approves, an alternative water quality protection standard that meets the requirements of both Title 27 §20390 and 40 CFR §§258.50 et seq., the Discharger shall monitor compliance with this order using a water quality protection standard that is established in accordance with Title 27, §§20390, 20385, 20395, 20400, and M&RP No. 99-33.

C. PROVISIONS

1. The Discharger shall comply with all discharge prohibitions, discharge specifications, provisions, and monitoring and reporting requirements of this order immediately upon its adoption.

2. The discharge of wastes shall not cause the release of pollutants or waste constituents in a manner that could cause a condition of contamination, pollution, or nuisance to occur, as indicated by the most appropriate statistical or non-statistical data analysis method and retest method listed in the attached M&RP No. 99-33.

3. The treatment or disposal of wastes shall not cause a nuisance or pollution, as defined in the California Water Code.

4. All wastes shall be maintained on property owned or controlled by the Discharger.

5. There shall be no disposal of wastes that contain any substances in concentrations toxic to human, animal, or plant life, such that these wastes could commingle with waters of the State.

6. The discharge of hazardous or designated wastes at the site is prohibited.

7. The disposal of liquid wastes into the landfill is prohibited.

8. The operation of the OAL shall not cause a discharge of pollutants into waters of the United States, including wetlands, that violates any requirements of the Clean Water Act, including, but not limited to, the National Pollutant Discharge Elimination System (NPDES) requirements, pursuant to §402.

9. During the winter months, when precipitation can be expected, disposal activities shall be confined to the smallest area possible based upon anticipated quantity of wastes and operational procedures.

10. The Discharger shall remove and relocate any wastes which are disposed of at the site in violation of these requirements.

11. All sewage treatment plant grit and screening residues disposed of at the site must be segregated from public access and shall not have a moisture content greater than 50 percent.

12. The Discharger shall establish and maintain permanent monuments in California coordinates (or equivalent) to define the boundary of the footprint of the landfill. Those bench marks shall be certified by a licensed surveyor or a professional civil engineer authorized to practice in California.

13. The water used during landfill operations shall be limited to the minimum amount reasonably necessary for dust control purposes, fire suppression, and minor maintenance.

14. Adequate cover shall be placed over all lifts except the active face at all times.

15. The Discharger shall notify the Regional Board immediately of any slope failure occurring in a waste management unit. Any failure which threatens the integrity of containment features or the landfill shall be promptly corrected after approval of a remediation workplan and schedule by the Executive Officer of the Regional Board.

16. The Discharger shall implement the attached M&RP No. 99-33 in order to detect, at the earliest opportunity, any unauthorized discharge of waste constituents from the Unit, or any unreasonable impairment of beneficial uses caused by or associated with discharges of waste to the Unit.

17. At any time, the Discharger may file a written request, including appropriate supporting documents, with the Regional Board Executive Officer, proposing any appropriate modifications to M&RP No. 99-33. The Discharger shall implement any changes in the revised M&RP approved by the Regional Board's Executive Officer upon receipt of a signed copy of the revised M&RP.

18. The Discharger shall conduct a Detection Monitoring Program (DMP), including a statistical analysis of monitoring data, pursuant to Title 27, §20420 and in accordance with M&RP No. 99-33.

19. The Discharger shall continue to implement the existing CAP, pursuant to Title 27, §20430.

20. Within 90 days of determining statistically significant evidence of a new release from the landfill, the Discharger shall submit an amended ROWD, pursuant to Title 27, §20420(k)(5), to establish an Evaluation Monitoring Program (EMP). Within 180 days of discovering the release, the Discharger shall submit a preliminary engineering feasibility study (EFS), pursuant to Title 27, §20420(k)(6).

21. The Discharger shall institute an EMP pursuant to Title 27, §20425 whenever there is statistically significant evidence of a new release from the landfill during the DMP. The Discharger shall implement the EMP within 90 days after approval of the EMP by Board staff. The EMP shall be used to assess the nature and extent of the new release from the landfill, and to revise the existing corrective action program (CAP).

22. Within 90 days of completion of the EMP, the Discharger shall submit an EFS and an amended ROWD, pursuant to Title 27, §20425(c) and (d), to establish a revised CAP.

23. The Discharger shall institute the revised CAP, pursuant to Title 27, §20430, when the Board determines that the EMP and the design of the revised CAP have been satisfactorily completed, and the amended ROWD, submitted pursuant to item 22, above, has been approved.

24. The Discharger shall install any additional ground water, soil pore liquid, soil pore gas, or leachate monitoring devices determined by the Executive Officer of the Regional Board to be necessary to comply with M&RP No. 99-33.

25. The Discharger shall expand the existing landfill gas collection and recovery system as the landfill operation progresses to prevent the migration of landfill gas to groundwater and to the environment.

26. The Discharger shall maintain at all times a minimum five-foot separation between waste and maximum anticipated high groundwater.

27. This Order supersedes WDR Order No. 98-99. Resolution 59-21 and WDR Order No. 78-29 are hereby rescinded.

D. DRAINAGE AND EROSION CONTROL

1. Waste management units shall be designed, constructed, and maintained to prevent, to the greatest extent possible, ponding, infiltration, inundation, erosion, slope failure, and washout which could occur as a result of precipitation from a 100-year, 24-hour frequency storm. This shall be accomplished by, at a minimum, the following:

    a. Top deck surfaces shall be constructed to achieve a minimum of one percent slope, including structures which will direct water to downdrains;

b. Downdrains and other necessary drainage structures must be constructed for all sideslopes as necessary.

c. All components of the facility drainage system must be designed and constructed to withstand site-specific maximum intensity precipitation (peak flow[2]) from a 100-year, 24-hour storm.

2. Leachate and gas condensate containment system structures shall be protected and maintained continuously to ensure their effectiveness and to prevent commingling of leachate and gas condensate with surface run-on and runoff.

3. The Discharger shall design, construct, and maintain:

a. A run-on drainage control system to prevent flow from off-site sources onto the disposal areas of the landfill (active or inactive portions), and to collect and divert both the calculated volume of precipitation and the peak flow from off-site sources that result from a 100-year, 24-hour storm;

b. A runoff drainage control system to minimize sheet flow from the disposal areas, and to collect and divert both the calculated volume of precipitation and the peak flow from on-site surface runoff that results from a 100-year, 24-hour storm; and

c. Drainage control structures to divert natural seepage from native ground and to prevent such seepage from entering the waste management units.

4. All drainage structures shall be protected and maintained continuously to ensure their effectiveness.

5. Annually, by October 1, all drainage control system construction and maintenance activities shall be completed. By December 31 of each year, the Discharger shall submit a drainage control system maintenance report to the Executive Officer of the Board. The drainage control system maintenance report shall include, but not be limited to, the following information:

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2 Peak flow is the maximum expected flow of run-on and runoff, resulting from precipitation both on and off-site for a given recurrence interval.

a. For the previous 12 months, a summary of the adequacy and effectiveness of the drainage control system to collect and divert the calculated volume of precipitation and peak flows resulting from a 100-year, 24-hour storm;

b. A tabular summary of both new and existing drainage control structures, including the types and completion dates of maintenance activities performed for each of these structures; and

c. An 11"x17" or larger site map indicating the locations of the elements listed in Item b., above, and the flow direction of all site drainage.

6. At least 30 days prior to the construction of any new elements of the drainage control system, the Discharger shall submit a workplan outlining all design parameters and calculations, construction details, and a construction quality assurance plan for approval by the Executive Officer of the Regional Board.

7. Within 8 weeks after completion of construction of any new elements of the drainage control system at the site, the Discharger shall submit as-built drawings.

8. All design plans, construction plans, and operation and maintenance plans shall be prepared by, or prepared under the direct supervision of, a registered civil engineer or a registered geologist.

9. Periodic inspection of the waste management units, the drainage control system, and all containment structures shall be performed to assess the conditions of these facilities and to initiate corrective actions necessary to maintain compliance with Drainage and Erosion Control sections E1 through E.5.

10. The facility shall be surveyed once a year either by aerial surveillance or a licensed surveyor to assure compliance with the one percent slope requirements. By December 31 of each year, a map compiled from the survey data shall be submitted to the Board, showing landfill elevations, the flow direction of all site drainage, the drainage control system, and containment structures.

11. The Discharger shall notify the Executive Officer of the Board by telephone (909-782-4130) within 24 hours of any failure of facilities necessary to maintain compliance with the requirements in this order. Within five days, the notification shall be submitted in writing to the Executive Officer.

12. The Discharger shall maintain a copy of this order at the site so as to be available at all times to site operating personnel.

13. The Discharger shall permit the Board:

    a. Entry upon premises in which a discharge source is located;

    b. To copy any records required to be kept under terms and conditions of this order; and

    c. To sample any discharges.

14. The Discharger shall notify the Board in writing of any proposed change in ownership or responsibility for construction, operation, closure or post-closure maintenance of the landfill. This notification shall be given prior to the effective date of the change and shall include a statement by the new Discharger that construction, operation, closure, and post-closure maintenance will be in compliance with any existing WDRs and any revisions thereof.

E. REQUIRED REPORTS AND NOTICES

1. REPORTING PROVISIONS:

a. All applications, reports or information submitted to the Regional Board shall be signed and certified in accordance with 40 CFR 122.22.

b. The Discharger shall furnish, within a reasonable time, any information the Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this order. The Discharger shall also furnish to the Board, upon request, copies of records required to be kept by this order.

2. The Discharger shall file a ROWD with the Board at least 120 days before making any material change or proposed change in the character, location, volume, treatment or disposal methods of discharge.

3. The Discharger shall give advance notice to the Board of any planned changes in the permitted facility or site activity that may result in noncompliance with these WDRs.

4. For any new liquid discharges, the Discharger shall submit to the Executive Officer, as part of the application for the proposed liquid discharge, a report certifying the adequacy of each component of the Liquids Treatment System and the associated Operation and Maintenance (O & M) Manual. This certification shall contain a requirement-by-requirement analysis, based on accepted engineering practice, of how the process and physical design of the treatment systems will ensure compliance with this order. The design engineer shall affix his/her signature, professional license number, and seal to this certification.

5. In the event of any change in control or ownership of land or waste discharge facilities currently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this order by letter. A copy of this letter shall be signed by the new owner accepting responsibility for complying with this order, and shall be forwarded to the Executive Officer.

6. Prior to discharging any waste in the proposed expansion area, the Discharger shall file with the Regional Board an operations plan for approval by the Executive Officer, which shall be updated whenever substantial changes in operations are made. A report indicating conformance with the operations plans shall be submitted annually. The operations plan shall include the information required by Title 27, §21760(b).

7. The operations plan shall also include the following:

   a. A description of the waste materials anticipated to be received;

   b. A map showing the boundaries of the disposal site and waste disposal areas;

   c. A general description of disposal site operations;

   d. Measures proposed for control of drainage, leachate, and gases;

   e. Ground water monitoring or other monitoring program; and

f. Anticipated land use after termination of disposal operations.

8. **CLOSURE AND POST-CLOSURE PLANS**

a. In accordance with Title 27, Section 21780 (b)(3), final closure and postclosure maintenance plans for solid waste landfills shall be submitted two years prior to the anticipated date of closure. Within five years of the anticipated date of closure, the operator may submit the final closure and postclosure maintenance plans in lieu of submitting new or updated preliminary closure and postclosure maintenance plans.

9. **FINANCIAL ASSURANCE PLANS**

a. The Discharger shall obtain and maintain assurances of financial responsibility for:

i. Closure activities pursuant to Title 27, §22205

ii. Post-closure maintenance activities pursuant to Title 27, §22210;

iii. Operating liability pursuant to Title 27, §22215; and

iv. Corrective action activities pursuant to Title 27, §22220.

F. PERMIT REVISION, REVOCATION, AND RE-ISSUANCE

1. If more stringent applicable water quality standards are promulgated or approved pursuant to §402 of the Federal CWA or the CCR, Title 27, or amendments thereto, the Board will revise and modify this order in accordance with such standards.

2. This order may be modified, revoked and reissued, or terminated for cause. The filing of a request by a Discharger for modification, revocation and re-issuance, or termination of this order, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on August 20, 1999.

Gerard J. Thibeault
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SANTA ANA REGION

ORDER NO. 99-33

MONITORING AND REPORTING PROGRAM FOR ORANGE COUNTY INTEGRATED WASTE MANAGEMENT DEPARTMENT OLINDA ALPHA LANDFILL CLASS III SOLID WASTE DISPOSAL SITE ORANGE COUNTY

A. GENERAL

1. Unless the discharger proposes, and the Regional Board approves, an alternative Water Quality Protection Standard (WQPS), the discharger shall perform the monitoring activities in compliance with the WQPS, and requirements of both Title 27, §20390 and 40 CFR §§258.50 et seq.

2. The concentration limit for any given Constituent of Concern (COC) or Monitoring Parameter in a given monitored medium (e.g., the uppermost aquifer) at the Olinda Alpha Sanitary Landfill (OAL) shall be in accordance with Title 27, §§20400 and 20415(e)(6,7, and 10), and shall be used as the basis of comparison with data from the monitoring points in that monitored medium.

3. Monitoring Points and Background Monitoring Points selection shall be in accordance with Title 27, §20405.

4. The compliance period of the DMP at OAL shall be in accordance with §20410 of Title 27.

5. Sample collection, storage, and analysis shall be performed according to the most recent version of Standard U.S. EPA Methods (U.S. EPA Publication "SW-846").

6. **CORRECTIVE ACTION SYSTEM**

   The corrective action system at the landfill currently includes three major elements:

   a. A groundwater extraction and collection system that is designed to deliver extracted groundwater to an ex-situ ultraviolet oxidation treatment unit.

   b. An ultraviolet treatment unit that removes VOCs and yields effluent which meets the proposed groundwater treatment standards, and

   c. An equalization storage tank where treated groundwater is stored and is later utilized for dust control at the landfill.

The purpose of the groundwater extraction system(s) is to recover VOC-impacted groundwater for on-site treatment. The groundwater treatment unit was installed to reduce VOC concentrations in the influent mixture to drinking water standards (Maximum Contaminant Levels) at the point of compliance.

7. MONITORING PARAMETERS

a. The discharger shall analyze separate water samples from each water-bearing medium for the monitoring parameters approved, and shall test the resulting data using one of the statistical or non-statistical methods listed in Title 27, §20415(e).

i. **Monitoring parameters that use statistical methods**:

(a) pH, total dissolved solids (TDS), chloride, and nitrate as nitrogen;

(b) **Each VOC in background** - Each VOC that exceeds its respective MDL in at least ten percent of the samples taken from the background monitoring points for a monitored water-bearing medium (i.e., surface water body, aquifer, perched zone, or soil-pore liquid) during a given Reporting Period.

ii. **Monitoring parameter that uses non-statistical methods**:

(a) Composite monitoring parameter "VOC_{water}."

b. Monitoring parameters for the required monitoring program(s) at OAL shall be approved by the Executive Officer of the Regional Board. The Executive Officer may approve alternative monitoring parameters that meet the requirements of both Title 27, §§20380 et seq. and 40 CFR §258.54. The Executive Officer may also approve alternative statistical methods that meet the requirements of Title 27, §20415(e) and 40 CFR §258.53.

8. CONSTITUENTS OF CONCERN (COCS)

The OAL is equipped with both an alternative liner and with a leachate collection and removal system (LCRS) that produces leachate; therefore, the discharger shall develop and maintain the COC list (under Title 27, §20395) as follows:

a. **Building and augmenting the COC list** - The COC list includes:

i. All constituents listed in Table D in the M&RP of this Order; and

ii. Each constituent listed in 40 CFR Part 258 Appendix II (attached as Table C in the M&RP of this Order) that is not already a COC for the landfill, and that was both:

(a). Detected in the annual October leachate sampling of the landfill's leachate when all constituents listed in Table C are tested; and

(b). Also detected in the retest (Table C) of a leachate sample collected the following April.

b. Background sampling for new constituents that are newly added to the landfill's COC list must be performed in accordance with Title 27, §20415(e)(6).

B. MONITORING PROGRAM

1. **Water Quality Monitoring**

a. The discharger shall comply with the requirements of Title 27, §20415 for any water quality monitoring program developed to satisfy §20420, §20425, or §20430 of Title 27 and the requirements of this order.

i. The ground water monitoring shall meet the requirements of Title 27, §20415(b) and 40 CFR §§258.51 (a, c, and d).

ii. The surface water monitoring shall meet the requirements of Title 27, §20415(c).

iii. Unsaturated zone monitoring shall meet the requirements of Title 27, §20415(d).

iv. All general monitoring requirements shall be in accordance with Title 27, §20415(e).

2. **Detection Monitoring Program (DMP)** - The discharger shall implement the requirements of the DMP as outlined in Title 27, §20420.

3. **Evaluation Monitoring Program (EMP)** - In the event of the discovery of a release from the expanded unit, the discharger shall implement the requirements of Title 27, §20425. The EMP shall be used to assess the nature and extent of the new release from the expanded unit and to design a corrective action program meeting the requirements of Title 27, §20430.

4. **Corrective Action Program (CAP)** - The discharger shall continue to implement the CAP to meet the requirements of Title 27, §20430. The compliance period of a CAP shall end when the discharger can

demonstrate, and the Regional Board approves, that the site has been in compliance with its WQPS for a period of three consecutive years.

5. **Leachate Sampling COC's** - COCs for annual leachate sampling (October) are specified in Tables C and D to the M&RP of this Order. These attachments may be revised and approved by the Executive Officer of the Regional Board as necessary to reflect the changes in the monitoring parameters for the required water quality programs.

6. **Corrective Action Treatment System Monitoring Parameters** - The discharger shall monitor treated groundwater for the corrective action system in accordance with Attachment 1.

7. **General Site Monitoring**

   a. At a minimum, all landfill gas condensate and leachate containment structures shall be inspected and evaluated on a weekly basis for their effectiveness. All deficiencies identified and the dates and types of corrective action taken shall be recorded in a permanent log. All deficiencies shall be photographed for the record. The volume of liquids collected in the containment structures shall be recorded weekly. Liquid samples, such as gas condensate and leachate, shall be collected in accordance with the monitoring frequency in Table A, and analyzed for constituents specified in Attachment 1.

   b. Monthly, the discharger shall inspect all waste management units and shall evaluate their effectiveness in achieving compliance with Discharge Specification D1. All areas of slope failure, differential settlement, fissuring, erosion, ponding, leachate staining, and seepage into or from the landfill shall be identified, field-marked, and documented. In the event seepage is discovered, the location of each seep shall be mapped and a mitigation plan submitted for the approval of the Executive Officer of the Regional Board. All findings shall be photographed for the record.

   c. At a minimum, all run-on and runoff drainage control structures shall be inspected and evaluated, quarterly for their effectiveness in achieving compliance with Discharge Specifications A.1. and Drainage and Erosion Control, D1. During dry weather conditions, the effectiveness of the drainage control system shall be evaluated on the basis of its conformance to the as-built drawings, or revised drawings, for the system. All deficiencies shall be identified and recorded.

   d. Annually, by October 15, an aerial or ground survey of the landfill facility shall be performed in accordance with the schedule in Table A of this M&RP.

C. REPORTING

1. **Monitoring report contents** - All reports shall be submitted no later than one month following the end of their respective Reporting Period. The reports shall be comprised of at least the following, in addition to the specific contents listed for each respective report:

   a. **Transmittal letter** - A letter summarizing the essential points in the report. This letter shall include a discussion of any requirement violations found since the last such report was submitted, and shall describe actions taken or planned for correcting those violations;

   b. **Compliance evaluation summary** - For groundwater monitoring and COC reports, a compliance evaluation summary containing at least:

      i. **Flow rate/direction** - For each monitored ground water body, a description and graphical presentation (e.g., arrow on a map) of the velocity and direction of ground water flow under/around the Unit, based upon water level elevations taken during the collection of the water quality samples;

      ii. **Well information** - For each monitoring well addressed by the report, a description of the method and time of water level measurement, and a description of the method of purging used before sampling to remove stagnant water in the well, pursuant to Title 27, §20415(e)(12)(B); and

      iii. **Sampling Information** - For each monitoring point and background monitoring point addressed by the report, a description of the type of pump or other device used and its vertical placement for sampling, and a detailed description of the sampling procedure (number and description of the samples, field blanks, travel blanks, and duplicate samples taken, the type of containers and preservatives used, the date and time of sampling, the name of the person collecting the samples, and any other observations);

   c. **Map** - A map (or copy of an aerial photograph) showing the locations of observation stations, monitoring points, and background monitoring points;

   d. **Laboratory data** - The laboratory results of all analyses shall be submitted in accordance with Section A.5 of this M&RP;

   e. **Leachate monitoring and control facilities, and drainage and erosion control system** - A statement as to the condition and performance of any leachate monitoring and control facilities, containment structures, waste management unit, and the drainage and erosion control systems. The summary shall include a list of

deficiencies identified and the dates and types of corrective actions taken to achieve compliance with the requirements contained in this order. If corrective actions for identified deficiencies could not be implemented by the end of the monitoring period; the discharger shall provide the reason(s) for noncompliance and a time schedule for implementing the corrective actions; and

f. **Waste type and placement** - The quantity and types of wastes discharged and the locations in the landfill where waste has been placed since submittal of the last such report.

2. **October Leachate Sampling** - The discharger shall report to the Regional Board, by no later than January 31 of each year, the analytical results of the leachate sample taken the previous October, including an identification of all detected Appendix II constituents (Table C) that were not previously on the landfill's COC list; and

3. **April retest** - If the annual leachate sample taken in October identifies Appendix II constituents that were not previously on the landfill's COC list (non-COCs), the discharger shall collect and analyze a retest sample in April. The retest sample shall be analyzed only for the non-COCs identified in the October sampling event. During any year in which an April leachate retest is carried out, the discharger shall submit a report to the Regional Board no later than August 1 of that year. This report must identify all constituents that must be added to the landfill's COC list as a result of having been detected in both the previous calendar year's October sample and in the April retest sample. The report shall also include an updated COC list, which includes the Appendix II (Table C) constituents that are newly detected in both the October and April leachate samples.

4. **Compliance monitoring report** - The discharger shall submit monitoring reports for the monitoring periods and reporting due dates specified below, which are also summarized in Table "A" to the M&RP of this order. The discharger may propose an alternate schedule and the Executive Officer may approve the proposal or require the discharger to comply under an alternate reporting frequency.

5. **Semi-Annual monitoring reports** - For each monitored medium, all monitoring points assigned to detection monitoring, evaluation monitoring and corrective action monitoring including all background monitoring points shall be monitored on a semi-annual basis. Reports prepared for this M&RP shall be submitted semi-annually to the Regional Board in accordance with Table A.

6. **Annual summary report** - The discharger shall submit an annual report to the Board covering the previous monitoring year (April 1 of the previous year through March 30 of the following year). The annual summary reports are due on April 30. This report may be combined with the

detection monitoring report period ending March 31, and shall meet the following requirements:

a. **Graphical Presentation** - Graphing the Analytical Data shall be in accordance with Title 27, §20415(e)(14);

b. **Table and diskette(s)** - All monitoring analytical data obtained during the previous two quarter reporting periods shall be presented in tabular form as well as on diskettes (either in MS-DOS/ASCII format or in another file format acceptable to the Regional Board Executive Officer). Data sets too large to fit on a single diskette may be submitted on disk in a commonly available compressed format (e.g., Win-Zip or NORTON BACKUP) acceptable to the Regional Board Executive Officer. The Regional Board regards the submittal of data in hard copy and on diskette as the form necessary for statistical analysis {Title 27, §20420(h)]. This format facilitates periodic review by the Board's statistical consultant;

c. **Compliance record discussion** - A comprehensive discussion of the compliance record, and of any corrective actions taken or planned which may be needed to bring the discharger into full compliance with the landfill's waste discharge requirements;

d. **Waste allocation map** - A map showing the area, if any, in which filling has been completed during the previous calendar year;

e. **Summary of changes** - A written summary of monitoring results and monitoring (and control) system(s), indicating any changes made or observed since the previous annual report; and

f. **Leachate control** - For units having leachate monitoring/control facilities, an evaluation of their effectiveness, pursuant to Title 27, §20340(b, c, & d).

7. **Annual drainage control and maintenance report** - Annually, by December 31, an annual site drainage control and maintenance report shall be submitted. The drainage control system maintenance report shall include, but not be limited to, the following information:

a. For the previous 12 months, a summary of the adequacy and effectiveness of the drainage control system to collect and divert the calculated volume of precipitation and peak flows resulting from a 100-year, 24-hour storm.

b. A tabular summary of the new and existing drainage control structures including the types and completion dates of maintenance activities performed for each of these structures; and

c. An 11"x17" site map indicating the locations of the elements listed in Item b., above, and the flow direction of all site drainage.

d. A facility site map as required under WDR Order No. 99-33, Drainage and Erosion Control, D.10.

8. **COC Report at least every five years** - In the absence of a new release being indicated, the discharger shall monitor all parameters on the facility's COC list and submit a report (COC Report).

   a. **Reporting period for COCs** - The discharger shall sample all monitoring points and background monitoring points for each monitored medium for all COCs every fifth year, beginning with the Spring of 2001 (the first Reporting Period ends March 31, 2001), with subsequent COC monitoring efforts being carried out every fifth year thereafter, alternately in the Fall (Reporting Period ends September 30) and Spring (Reporting Period ends March 31).

   b. **COC report** - This report, which is due one month following the Reporting period, may be combined with any monitoring report or annual summary report.

9. **Reporting Schedule** - The discharger shall submit the reports/ documents in accordance with the deadlines specified in Table A.

10. **Signature** - All reports shall be signed by a responsible officer or a duly authorized representative of the discharger and shall be submitted under penalty of perjury.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region.

Gerard J. Thibeault
Executive Officer

August 20, 1999

ATTACHMENT 1

OLINDA ALPHA LANDFILL

Type of Program	Monitoring Parameters	Monitoring Frequency
Detection water quality monitoring program	pH, nitrate, chloride, and 47 volatile organic compounds (VOCs) listed in Appendix I[1] to 40 CFR Part 258	Semi-annually
Corrective action water quality monitoring program	pH, nitrate, chloride, 47 VOCs of Appendix I constituents, and 17 metals of Appendix II[2] constituents	Semi-annually
Extracted groundwater (untreated) monitoring	pH, nitrate, chloride, 47 VOCs of Appendix I constituents, and 17 metals of Appendix II constituents	Semi-annually
Treated groundwater monitoring	pH, nitrate, chloride, and the Appendix II constituents	Semi-annually
Landfill gas condensate analysis	The Appendix II constituents and general minerals[3]	Annually
Vadose Zone Monitoring (perimeter gas probes)	Methane (field), total gaseous non-methane organic hydrocarbons (TGNMO), and the 17 core group VOCs, as specified by the SCAQMD Rule 1150.1	Monthly (per Rule 1150.1)
COC analysis	The Appendix II constituents and general minerals. See Footnote[4]	Once every five years
Aerial or ground survey	Not applicable	Annually

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1 See Table B.

2 See Table C.

3 See Table D.

4 The COC list will be modified when the newly-installed leachate collection and removal system (LCRS) begins producing leachate, at which time the annual October leachate testing and April resting program will be implemented and used to establish and augment the COC list.

TABLE A

MONITORING AND REPORTING

Task Description	Monitoring Period	Report Due Date
Semi-annual Water Quality monitoring	October 1 – March 31	April 30 of each year
	April 1 – September 30	October 31 of each year
Semi-annual general site monitoring	October 1 – March 31	April 30 of each year
	April 1 – September 30	October 31 of each year
October leachate analysis	October 1 – October 31	January 31 of the following year
April leachate retesting analysis	April 1 – April 30	August 1 of each year
Annual drainage control and maintenance	By October 1 of each year	December 31 of each year
Aerial or ground survey	By October 15 of each year	December 31 of each year, or December 31, 1999 and every fifth year thereafter (see Attachment 1)
Annual summary	April 1 of previous year – March 31	April 30 of each year
COC analysis	April 1 – September 30, 2001	October 31, 2001
	October 1, 2005 – March 31, 2006	April 30, 2006, and every fifth year thereafter, alternately in the Fall (October 31) and Spring (April 30)

TABLE B

LIST OF APPENDIX I CONSTITUENTS

Inorganic Constituents	Organic Constituents – continued
Antimony	p-Dichlorobenzene; 1,4-Dichlorobenzene
Arsenic	trans-1,4-Dichloro-2-butene
Barium	1,1-Dichloroenthane; Ethylidene chloride
Beryllium	1,2-Dichloroethane; Ethylene dichloride
Cadmium	1,1-Dichloroethylene; 1,1-Dichloroethane; Vinylidene chloride
Chromium	cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene
Cobalt	trans-1,2-Dichloroethylene; trans-1,2-Dichloroethene
Copper	1,2-Dichloropropane; Propylene dichloride
Lead	cis-1,3-Dichloro propene
Nickel	trans-1,2-Dichloropropene
Selenium	Ethylbenzene
Silver	2-Hexanone; Methyl butyl ketone
Thallium	Methyl bromide; Bromomethane
Vanadium	Methyl chloride; Chloromethane
Zinc	Methylene bromide; Dibromomethane
	Methylene chloride; Dichloromethane
Organic Constituents	Methyl ethyl ketone; MEK; 2-Butanone
Acetone	Methyl iodide; Iodomethane
Acrylonitrile	4-Methyl-2-pentanone; Methyl isobutyl ketone
Benzene	Styrene
Bromochloromethane	1,1,1,2-Tetrachloroethane
Bromodichloromethane	1,1,2,2-Tetrachloroethane
Bromoform; Tribromomethane	Tetrachloroethylene; Tetrachloroethene; Perchloroethylene
Carbon disulfide	Toluene
Carbon tetrachloride	1,1,1-Trichloroethane; Methylchloroform
Chlorobenzene	1,1,2-Trichloroethane
Chloroethane; Ethyl chloride	Trichloroethylene; Trichloroethene
Chloroform; Trichloromethane	Trichlorofluoromethane; CFC-11
Dibromochloromethane; Chlorodibromomethane	1,2,3-Trichloropropane
1,2-Dibromo-3-chloropropane; DBCP	Vinyl acetate
1,2-Dibromoethane; Ethylene dibromide; EDB	Vinyl chloride
o-Dichlorobenzene; 1,2-Dichlorobenzene	Xylenes

TABLE C

LIST OF APPENDIX II CONSTITUENTS

Acenaphthene
Acenaphthylene
Acetone
Acetonitrile; Methyl cyanide
Acetophenone
2-Acetylaminofluorene; 2-AAF
Acrolein
Acrylonitrile
Aldrin
Allyl chloride
4-Aminobiphenyl
Anthracene
Antimony (total)
Arsenic (total)
Barium (total)
Benzene
Benzo[a]anthracene; Benzanthracene
Benzo[b] fluoranthene
Benzo[k] fluoranthene
Benzo[ghi] perylene
Benzo[a] pyrene
Benzyl alcohol
Beryllium (total)
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC; Lindane
Bis(2-chloroethoxy) methane
Bis(2-chloroethyl) ether; Dichloroethyl ether
Bis(2-chloro-1-methylethyl) ether; 2,2-Dichlorodiisopropyl ether; DCIP
Bis(2-ethylhexyl) phthalate
Bromochloromethane; Chlorobromomethane
Bromodichloromethane; Dibromochloromethane
Bromoform; Tribromomethane
4-Bromophenyl phenyl ether
Butyl benzyl phthalate; Benzyl butyl phthalate
Cadmium (total)
Carbon disufide
Carbon tetrachloride
Chlordane
p-Chloroaniline
Chlorobenzene
Chlorobenzilate
p-Chloro-m-cresol; 4-Chloro-3-methylphenol
Chloroethane; Ethyl chloride
Chloroform; Trichloromethane
2-Chloronaphthalene
2-Chlorophenol
4-Chlorophenyl phenyl ether
Chloroprene
Chromium (total)
Chrysene
Cobalt (total)
Copper (total)
m-Cresol; 3-methylphenol
o-Cresol; 2-methylphenol
p-Cresol; 4-methylphenol
Cyanide
2,4-D; 2,4-Dichlorophenoxyacetic acid
4,4-DDD
4,4-DDE
4,4-DDT
Diallate
Dibenz [a,h] anthracene
Dibenzofuran
Dibromochloromethane; Chlorodibromomethane
1,2-Dibromo-3-chloropropane; DBCP
1,2-Dibromoethane; Ethylene dibromide; EDB
Di-n-butyl phthalate
o-Dichlorobenzene; 1,2-Dichlorobenzene
m-Dichlorobenzene; 1,3-Dichlorobenzene
p-Dichlorobenzene; 1,4-Dichlorobenzene
3,3-Dichlorobenzidine
trans-1,4-Dichloro-2-butene
Dichlorodifluoromethane; CFC 12
1,1-Dichloroethane; Ethyldidene chloride
1,2-Dichloroethane; Ethylene dichloride
1,1-Dichloroethylene; 1,1-Dichloroethene; Vinylidene chloride
cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene
trans-1,2-Dichloroethylene; trans-1,2-Dichloroethene
2,4-Dichlorophenol
2,6-Dichlorophenol
1,2-Dichloropropane; Propylene dichloride
1,3-Dichloropropane; Trimethylene dichloride
2,2-Dichloropropane; Isopropylidene chloride
1,1-Dichloropropene
cis-1,3-Dichloropropene
trans-1,3-Dichloropropene
Dieldrin
Diethyl phthalate
0,0-Diethyl 0-2-pyrazinyl phosphorothioate; Thionazin
Dimethoate
p-(Dimethylamino)azobenzene
7,12-Dimethylbenz[a]anthracene
3,3-Dimethylbenzidine
2,4-Dimethylphenol; m-Xylenol
Dimethyl phthalate
m-Dinitrobenzene
4,6-Dinitro-o-cresol; 4,6-Dinitro-2-methylphenol
2,4-Dinitrophenol
2,4-Dinitrotoluene
2,6-Dinitrotoluene
Dinoseb; DNBP; 2-sec-Butyl-4,6-dinitrophenol
Di-n-octyl phthalate
Diphenylamine
Disulfoton
Endosulfan I
Endosulfan II
Endosulfan sulfate
Endrin
Endrin aldehyde
Ethylbenzene
Ethyl methacrylate
Ethyl methanesulfonate
Famphur
Fluoranthene
Fluorene
Heptachlor
Heptachlor epoxide
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclopentadiene
Hexachloroethane
Hexachloropropene
2-Hexanone; Methyl butyl ketone
Indeno (1,2,3-cd) pyrene
Isobutyl alcohol
Isodrin
Isophorone
Isosafrole
Kepone
Lead (total)
Mercury (total)
Methacrylonitrile
Methapyrilene

TABLE C (continued)

LIST OF APPENDIX II CONSTITUENTS

Methoxychlor
Methyl bromide; Bromomethane
Methyl chloride; Chloromethane
3-Methylcholanthrene
Methyl ethyl ketone; MEK; 2-Butanone
Methyl iodide; Iodomethane
Methyl methacrylate
Methyl methanesulfonate
2-Methylnaphthalene
Methyl parathion; Parathion methyl
4-Methyl-2-pentanone; Methyl isobutyl ketone
Methylene bromide; Dibromomethane
Methylene chloride; Dichloromethane
Naphthalene
1,4-Naphthoquinone
1-Napthylamine
2-Napthylamine
Nickel (total)
o-Nitroaniline; 2-Nitroaniline
m-Nitroaniline; 3-Nitroaniline
p-Nitroaniline; 4-Nitroaniline
Nitrobenzene
o-Nitrophenol; 2-Nitrophenol
p-Nitrophenol; 4-Nitrophenol
N-Nitrosodi-n-butylamine
N-Nitrosodiethylamine
N-Nitrosodimethylamine
N-Nitrosodiphenylamine
N-Nitrosodipropylamine; N-Nitroso-N-dipropylamine;
Di-n-propylnitrosamine
N-Nitrosomethylethylamine
N-Nitrosopiperidine
N-Nitrosopyrrolidine
5-Nitro-o-toluidine
Parathion
Pentachlorobenzene
Pentachloronitrobenzene
Pentachlorophenol
Phenacetin
Phenanthrene
Phenol
p-Phenylenediamine
Phorate
Polychlorinated biphenyls; PCBS; Aroclors
Pronamide
Propionitrile; Ethyl cyanide
Pyrene
Safrole
Selenium (total)
Silver (total)
Silvex; 2,4,5-TP
Styrene
Sulfide
2,4,5-T; 2,4,5-Trichlorophenoxyacetic acid
1,2,4,5-Tetrachlorobenzene
1,1,1,2-Tetrachloroethane
1,1,2,2-Tetrachloroethane
Tetrachloroethylene; Tetrachloroethene; Perchloroethylene
2,3,4,6-Tetrachlorophenol
Thallium (total)
Tin (total)
Toluene
o-Toluidine
Toxaphene
1,2,4-Trichlorobenzene
1,1,1-Trichloroethane; Methylchloroform
1,1,2-Trichloroethane
Trichloroethyiene; Trichloroethene
Trichlorofluoromethane; CFC-1 1
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
1,2,3-Trichloropropane
0,0,0-Triethyl phosphorothioate
sym-Trinitrobenzene
Vanadium (total)
Vinyl acetate
Vinyl chloride; Chloroethene
Xylenes (total)
Zinc (total)

TABLE D

LIST OF GENERAL MINERALS

Parameter	EPA Method	Parameter	EPA Method
GENERAL		**GENERAL - CONT'D**	
Total Hardness	130	Total Dissolved Solids	160.1
Bicarbonate (HCO_3)	310.2	Chemical Oxygen Demand	410
Carbonate ($CaCO_3$)	310.2	Phenols	420.1
Total Alkalinity	310.1	Total Organic Carbon	415
Total Cations	[1]	Total Organic Halogens	450.1
Total Anions	[1]	Calcium (Ca)	200.7/215
Hydroxide (OH)	[2]	Magnesium (Mg)	200.7/242.1
Chloride (Cl)	325	Manganese (Mn)	200.7/243.1
Fluoride (F)	340	Potassium (K)	200.7/258.1
Nitrate (NO_3)	353.2	Sodium (Na)	200.7/273.1
Sulfate (SO_4)	375	Iron (Fe)	200.7/236.1
Phosphate (PO_4)	365.2	Zinc (Zn)	200.7/289.1
Total Phosphorus	365.1/365.2		
Boron (B)	212.3/200.7		
Specific Conductance (Electrical Conductivity - EC)	120.1		
PH	150.1		

[1] Total cations and anions are determined by the summation of all cations and anions, respectively, in the sample analyzed.

[2] The standard method, SM 2330B, in the "Standard Methods for the Examination of Water and Wastewater" for hydroxide ion analysis shall be used.

California Regional Water Quality Control Board
Santa Ana Region

STAFF REPORT

August 20, 1999

ITEM: 6

SUBJECT: Waste Discharge Requirements for County of Orange Integrated Waste Management Department, Olinda Alpha Landfill, Orange County, Order No. 99-33

DISCUSSION:

Orange County Integrated Waste Management Department (hereinafter IWMD or County) owns and operates the Class III Olinda Alpha Landfill (OAL). The site consists of two separate but adjacent canyon fill areas formerly designated as Olinda Disposal Stations 20 and 23. The site is located in an unincorporated area of the County, north of the City of Brea in the Puente/Chino Hills, portions of Sections 4, 5, 8, and 9, T3S, R9W, SBB&M, as shown on Attachment "A".

The Board adopted requirements for Olinda Disposal Station No. 20, Resolution No. 59-21, on Sept. 25, 1959 and amended by WDR Order No. 81-48, adopted April 10, 1981; and for Olinda Alpha Disposal Station No. 23, Order No. 78-29 on February 10, 1978. Requirements for both landfills were amended by WDR Order Nos. 93-57 and 94-17 to incorporate new federal regulations (Subtitle D). On November 20, 1998, the Board adopted Order No. 98-99, which combined Order Nos. 93-57 and 94-17.

On June 6, 1997, the Regional Board adopted Order No. 97-55, amending waste discharge requirements for Disposal Sites 20 and 23. The amendment allowed for the waiver of the liner requirements for a 64-acre central ridge expansion.

On January 14, 1998, the County submitted a complete Report of Waste Discharge (ROWD) for the proposed expansion and merging of Disposal Stations 20 and 23, to be renamed the OAL. The merger includes the vertical expansion of the entire landfill and the removal of the central ridge between the two canyons for additional fill space. The footprint of the entire expanded landfill will cover approximately 420 acres. The expansion area will be constructed in accordance with the requirements specified in Title 27.

The landfill site has a present capacity of approximately 60,600,000 cubic yards. The planned lateral and vertical expansion phases will accommodate an ultimate capacity of 123,100,000 cubic yards by the planned closure date of December 31, 2013. The combined site will accept a daily maximum of 8,000 tons of municipal solid waste.

The proposed order will incorporate and replace all existing orders. This order also includes requirements for the merger of Disposal Sites 20 and 23 in accordance with Title 27, the Porter-Cologne Water Quality Control Act, and the Santa Ana Water Quality Control Plan (Basin Plan). Upon adoption of this order, all prior orders for the site are rescinded.

RECOMMENDATION:

Regional Board staff has reviewed the ROWD submitted by the County and feel that the proposed regulatory requirements in this order ensure the protection of water quality. Therefore, Board staff recommends the adoption of Order No. 99-33.

Comments were solicited from the following agencies:

U. S. Environmental Protection Agency - Donna Orebec
California Integrated Waste Management Board, Sacramento - Dorothy Rice
U.S. Environmental Protection Agency, Permits Issuance Section (W-5-1) - Terry Oda
State Water Resources Control Board, Office of the Chief Counsel - Ted Cobb
State Water Resources Control Board, Division of Water Quality - John Youngerman
State Department of Health Services - San Bernardino
State Department of Fish and Game - Long Beach
State Department of Water Resources - Glendale
State Water Resources Control Board, Division of Clean Water Programs - Elizabeth Haven
South Coast Air Quality Management District, Diamond Bar – Dan Russell
Orange County Environmental Health Department, LEA - Patricia Henshaw
Orange County Water District - Nira Yamachika
Santa Ana Watershed Project Authority – Joe Grindstaff
Santa Ana River Dischargers' Association - Chairman
Southern California Association of Governments - Cindy Krebs
City of Brea – City Manager
OCIWMD – Kevin Kondru, Florencia Foronda